

BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 2019-226-E - ORDER NO. 2021-429
JUNE 18, 2021

IN RE: South Carolina Energy Freedom)	ORDER ACCEPTING MODIFIED
Act (House Bill 3659))	INTEGRATED RESOURCE PLAN
Proceeding Related to S.C. Code)	AND PROVIDING ADDITIONAL
Ann. Section 58-37-40 and)	INSTRUCTIONS FOR FUTURE
Integrated Resource Plans for)	INTEGRATED RESOURCE PLANS
Dominion Energy South)	AND UPDATES
Carolina, Incorporated)	

This matter comes before the Public Service Commission of South Carolina (“Commission”) upon the Petition of Dominion Energy South Carolina, Incorporated (“DESC” or “Company”) for acceptance of its Modified 2020 Integrated Resource Plan pursuant to and in compliance with Commission Order No. 2020-832.

I. PROCEDURAL HISTORY

On December 23, 2020, the Commission issued Order No. 2020-832, which rejected DESC’s Integrated Resource Plan (“IRP”) and required DESC to make significant, material modifications to its 2020 IRP, as well as future IRP Updates and future IRPs pursuant to S.C. Code Ann. Section 58-37-40 (C)(3) (Supp. 2020).

When filing its Modified 2020 IRP on February 19, 2021, DESC asserted that the Modified IRP satisfied all ordered requirements and provisions of Order No. 2020-832. The DESC Modified 2020 IRP included “Appendix B” which indicates the specific sections of the Modified 2020 IRP that are designed to satisfy specific requirements of Order No. 2020-832.

On April 20, 2021, the Office of Regulatory Staff (“ORS”) filed its report (“ORS Report”) with the Commission pursuant to S.C. Code Ann. Section 58-37-40(C)(3) (Supp. 2020). Section 58-37-40(C)(3) requires, “[w]ithin sixty days of the electrical utility's revised filing, the Office of Regulatory Staff shall review the electrical utility's revised plan and submit a report to the commission assessing the sufficiency of the revised filing.”¹ ORS is statutorily required to review the electrical utility’s revised IRP for sufficiency with the Commission’s requirements.

The ORS Report found that,

[e]xcept for one item related to Finding of Fact #21 as detailed in this report, ORS determined that the Company sufficiently met the requirements specified in the Order. Additionally, DESC summarily addressed the aspects of the Commission’s Order related to the 2021 and 2022 IRP updates and the 2023 comprehensive IRP.²

Other parties filing joint comments related to DESC’s Modified 2020 IRP were South Carolina Coastal Conservation League, Southern Alliance for Clean Energy, Carolinas Clean Energy Business Alliance, and Sierra Club (collectively “Joint Intervenors”). All of the Joint Intervenors were intervening parties in the initial DESC IRP Proceeding in this docket. “Other parties to the integrated resource proceeding may also submit comments[,]” pursuant to S.C. Code Ann. 58-37-40(C)(3) (Supp. 2020), and the Joint Intervenors availed themselves of the opportunity statutorily provided to file comments jointly on April 20, 2021.

The Joint Intervenors’ comments asserted,

¹ S.C. Code Ann. Section 58-37-40(C)(3) (Supp. 2020).

² ORS Report filed April 20, 2021 at p. 1 (<https://dms.psc.sc.gov/Attachments/Matter/f818e2aa-8d45-4d8d-b401-b8d5ec3da000>).

Notwithstanding DESC's failure to comply with many aspects of the Commission's Order in the Modified IRP, Intervenor do not recommend that the Modified IRP be rejected outright. Rather, Intervenor recommend that the Commission approve the Modified IRP, conditioned on certain modifications being made and other actions taken to address the issues identified in Intervenor's comments.³

On May 24, 2021, in response to both the ORS Report and the Joint Intervenor's comments, DESC filed a responsive letter and a Revised Modified 2020 IRP providing the additional information requested by ORS.

On May 25, 2021, ORS filed a letter asserting, "ORS is satisfied with DESC's response to the deficiencies identified in the ORS Report of DESC's Modified IRP and has no additional comments."⁴

Subsequent to ORS' May 25, 2021, letter, individual responses to DESC's May 24, 2021, letter and Revised Modified 2020 IRP were filed by Carolinas Clean Energy Business Association, Sierra Club, and South Carolina Coastal Conservation League and Southern Alliance for Clean Energy.

II. STANDARD OF PROOF AND STATUTORY FRAMEWORK

The Commission is required to adjudicate the matters arising in contested cases using the preponderance of evidence standard.⁵ The legal framework of the immediate proceeding subsequent to the rejection or modification of an Integrated Resource Plan, is codified as enacted in South Carolina Act 62:

If the commission modifies or rejects an electrical utility's integrated resource plan, the electrical utility, within sixty

³ Joint Intervenor's Comments filed April 20, 2021, at p. 1-2.

⁴ ORS Letter filed May 25, 2021 at p. 1 (<https://dms.psc.sc.gov/Attachments/Matter/400ba803-305c-4b72-ac05-8f91769e81d2>).

⁵ S.C. Code Ann. Section 1-23-600 (A)(5) "[] Unless otherwise provided by statute, the standard of proof in a contested case is by a preponderance of the evidence."

days after the date of the final order, shall submit a revised plan addressing concerns identified by the commission and incorporating commission-mandated revisions to the integrated resource plan to the commission for approval. Within sixty days of the electrical utility's revised filing, the Office of Regulatory Staff shall review the electrical utility's revised plan and submit a report to the commission assessing the sufficiency of the revised filing. Other parties to the integrated resource plan proceeding also may submit comments. No later than sixty days after the Office of Regulatory Staff report is filed with the commission, the commission at its discretion may determine whether to accept the revised integrated resource plan or to mandate further remedies that the commission deems appropriate.

S.C. Code Ann. Section 58-37-50 (C)(3) (Supp. 2020).

III. ELEMENTS FOR SATISFACTION AND CORRECTION IN DESC MODIFIED 2020 IRP

Commission Order No. 2020-832 required that DESC shall:

- 1) Conduct an ongoing stakeholder process.
- 2) Model additional set of resource plans.
- 3) Report on the Wateree generation plant outage.
- 4) Improve cost assumptions for generic resource options:
 - a. Flexible solar photovoltaic power purchase agreements (“PPAs”).
 - b. Battery storage systems.
 - c. Solar and battery escalation rates.
 - d. Internal combustion turbines.
- 5) Revise winter solar capacity value in production cost modeling.
- 6) Revise solar integration costs in production cost modeling.
- 7) Include simple quantitative risk analysis.
- 8) Conduct wider range of gas and carbon prices.

- 9) Conduct “rapid assessment” to study achievability of demand-side management (“DSM”).
- 10) Provide action plan to complete a comprehensive DSM evaluation.
- 11) Include customer affordability and bill impacts as an analysis criterion.
- 12) Discuss current and potential state and federal environmental regulations.
- 13) Include reliability metrics and generator performance data.
- 14) Include information on storm-related impacts.
- 15) Include Competitive procurement of flexible solar photovoltaic Power Purchase Agreements (PPA).
- 16) Include a three-year action plan.

Each of these requirements were addressed in the DESC Modified 2020 IRP and in the DESC Revised Modified 2020 IRP. Each action item identified in the DESC filing for action was evaluated for sufficiency by ORS, and many elements received comments from the Joint Intervenors either collectively or individually.

IV. FINDINGS OF FACT

After consideration of the DESC Modified 2020 IRP, ORS’ Report, and comments from the Joint Intervenors filed in this docket, the Commission hereby makes the following findings of fact concerning the above required sixteen (16) elements that are also supported by the evidence in the record as detailed in Order No. 2020-832 and as discussed below:

A. Element 1: Conduct an Ongoing Stakeholder Engagement Process

DESC has retained Charles River Associates to design and implement a stakeholder advisory group which had an initial meeting on February 16, 2021.⁶ The invitees to that meeting included stakeholders from commercial interest groups to conservation groups, and included ORS and the SC Energy Office.⁷ The process contemplates meeting every six to eight weeks in the months prior to an IRP filing or update to review model inputs and scoping and draft model runs.⁸ The Commission finds that these actions satisfy the respective requirement of Commission Order No. 2020-832.

B. Elements 2 and 4: Model Additional Set of Resource Plans and Improve Cost Assumptions

DESC modeled fourteen (14) resource plans which covered a range of options:

- a. Three different retirement plans were modeled.
- b. Ten plans included additional renewables.
- c. All plans included 973 MW of existing solar PPAs.
- d. RP8 included approximately 1,900 MW of solar and 700 MW of storage.
- e. Three different sized solar generators were modeled at 400 MW, 100 MW and 50 MW.
- f. Two different types of solar generation were modeled—Company-owned and third-party owned PPAs.
- g. Three different gas generators were modeled—CC, Frame ICT, and Aero ICT.⁹

⁶ DESC 2020 Revised Modified IRP at p. 86.

⁷ DESC 2020 Revised Modified IRP at p. 87.

⁸ Id.

⁹ DESC 2020 Revised Modified IRP at p. 48.

The resulting resource plans are described in the following table¹⁰:

Description of Resource Plans		
Resource Plan ID	Resource Plan Name	Resource Plan Description
RP1	CC	An initial Combined Cycle followed by large frame ICTs
RP2	ICT	Large Frame ICTs
RP3	Retire Wateree	Wateree 1 & 2 retirement (2028), Combined Cycle, large frame ICTs
RP4	Retire Steam Gas	McMeekin and Urquhart 3 retirement, large frame ICTs
RP5	Solar + Storage 2026	Flexible Solar + Battery Storage, Combined Cycle, large frame ICTs
RP6	Solar 2026	Flexible Solar, large frame ICTs
RP7	Solar PPA 2026 + Storage 2026	Flexible Solar PPA(400MW) + Battery Storage (100MW), large frame ICTs
RP7a	Solar PPA 2023	Flexible Solar PPA(400MW) \$38.94/MWh + large frame ICTs
RP7a2	Solar PPA 2023	Flexible Solar PPA(400MW) \$36/MWh + large frame ICTs
RP7a3	Solar PPA 2023	Flexible Solar PPA(400MW) \$34/MWh + large frame ICTs
RP7b	Solar PPA 2023 + Storage 2023	Flexible Solar PPA(400MW) \$38.94/MWh + Battery Storage PPA (100MW), large frame ICTs
RP7b2	Solar PPA 2023 + Storage 2023	Flexible Solar PPA(400MW) \$36/MWh + Battery Storage PPA (100MW), large frame ICTs
RP7b3	Solar PPA 2023 + Storage 2023	Flexible Solar PPA(400MW) \$34/MWh + Battery Storage PPA (100MW), large frame ICTs
RP8	Replace Coal with Gas and Renewables	Wateree and Williams retirements (2028) with Combined Cycle, Solar and Battery Storage, large frame and aeroderivative ICTs

¹⁰ DESC 2020 Revised Modified IRP at p. 48.

The Commission finds that the fourteen resource plans modeled by DESC and described in the above-captioned table satisfy the requirements of Commission Order No. 2020-832 for Elements 2 and 4 (a-g).

C. Element 3: Report on the Wateree Outage

DESC reported sufficient details regarding its Wateree Unit No. 2 outage. It explained how, due to plant damage, there was a maximum cost limit for DESC of \$10 million. Specifically, DESC explained that it contracts for insurance from “dozens” of carriers on a quota-share basis.¹¹ Additionally, DESC identified the builder and contractor for the replacement of a major generation component, also providing the financial security of the same.¹² DESC identified the turbine builder and its financial security, upon which DESC has no current claim with respect to the Wateree Unit 2 outage.¹³ DESC also provided a timeline and a backup plan if the Wateree plant repairs fail.¹⁴

The Commission finds that the disclosures related to the Wateree Unit 2 outage are sufficient and comply with the requirements ordered in Commission Order No. 2020-832.

D. Element 5: Revise Winter Solar Capacity Value in Production Cost Modeling

DESC updated its Effective Load Carrying Capacity calculations to include a value of 11.8% for solar, based on its existing levels of solar.¹⁵ The resulting modeled results are illustrated in Appendix F and Appendix G in the DESC 2020 Revised Modified IRP.¹⁶ The

¹¹ DESC 2020 Revised Modified IRP at p. 108.

¹² Id.

¹³ Id.

¹⁴ Id.

¹⁵ DESC 2020 Revised Modified IRP at p. 113.

¹⁶ DESC 2020 Revised Modified IRP at p. 113 – 143.

Commission finds the updated calculations to be satisfactory with the requirements of Commission Order No. 2020-832.

E. Element 6: Revise Solar Integration Costs in Production Cost Modeling

DESC included an integration charge of \$0.96/MWh added to the solar PPA price. For RP7a and RP7b, costs were modeled as required by Order No. 2020-832, at \$38.94/MWh, \$36/MWh, and \$34/MWh.¹⁷ The Commission finds that DESC properly applied the calculations required by Order No. 2020-832.

F. Element 7: Include Simple Quantitative Risk Analysis

DESC was required to perform a simple quantitative risk analysis in Order No. 2020-832. It performed a Mini-Max Regrets and Cost Range analyses, wherein all fourteen resource plans were evaluated against all twenty-seven scenarios.¹⁸ Based upon ORS' review of the 2020 Revised Modified IRP, the Commission adopts the same conclusion that DESC complied with Order No. 2020-832 and included appropriate risk analysis.¹⁹ The results of ranking all resource plans against all scenarios demonstrated that RP8 was, in all but one scenario, the least costly plan.²⁰ The Commission finds that DESC has sufficiently performed the simple quantitative risk analysis as required by Order No. 2020-832.

¹⁷ DESC 2020 Revised Modified IRP at p. 47

¹⁸ DESC 2020 Revised Modified IRP at p. 74

¹⁹ Review of Dominion Energy South Carolina, Inc. Modified 2020 Integrated Resource Plan Docket No. 2019-226-E pursuant to Order No. 2020-832, South Carolina Office of Regulatory Staff, April 20, 2021., p. 23.

²⁰ Id.

G. Element 8: Conduct Wider Range of Gas and Carbon Prices

DESC modeled three gas price assumptions plus three CO2 cost assumptions.²¹ When combined with the three DSM assumptions, this created the twenty-seven different sensitivities against which each resource plan was modeled. The low CO2 price was \$0/ton; medium was \$12/ton with an annual growth of 10%; and the high price was \$35/ton with an annual growth of 7.5%. Similarly, natural gas was modeled using the Energy Information Administration's low, medium, and high forecasts.²²

The Commission finds that the modeling of the CO2 cost assumptions and the wider range of forecasted natural gas pricing satisfies the requirements of Order No. 2020-832.

H. Element 9: Conduct "Rapid Assessment" to Study Achievability of DSM

Order No. 2020-832 required Dominion to develop and include in the Modified 2020 IRP a set of modifications to the Company's existing DSM portfolio that would achieve at least a 1% level of savings in the years 2022, 2023, and 2024, and screen such measures for cost effectiveness and achievability. In response, DESC's Revised Modified 2020 IRP included such measures that would be required to achieve this result. "[W]hen compared to the DSM portfolio that takes into account the avoided cost update, these changes result in an increase of 437,575 MWh, an increase of approximately \$60 million in the 10-year potential study, and a max percent sales achievement in the 10 years of 1.03% versus 0.7% as previously identified."²³

²¹ DESC 2020 Revised Modified IRP at p. 50-51.

²² DESC 2020 Revised Modified IRP at p. 51.

²³ DESC 2020 Revised Modified IRP at p. 97.

The Commission finds that the rapid assessment conducted by DESC complies with the requirements of Order No. 2020-832.

I. Element 10: Provide an Action Plan to Complete a Comprehensive DSM Evaluation

Order No. 2020-832 required DESC to develop an action plan to complete a comprehensive DSM evaluation of the cost-effectiveness and achievability of DSM portfolios reaching 1% and higher savings, including savings levels of 1.25%, 1.5%, 1.75% and 2% for inclusion in its next full IRP. DESC intends to complete this evaluation by initiating a new potential study in early to mid-2021.²⁴

The current action plan timeline is as follows:

1. No later than Q3 2021: Select vendor and initiate potential study for the 2023 IRP.
2. No later than Q4 2021: Hold kick-off meeting with EE Advisory Group to discuss scope and process for potential study.
3. 2022: Provide EE Advisory Group with status reports during regularly scheduled meetings at least twice per year. Provide both the EE Advisory Group and the IRP Stakeholder Advisory Group with final draft for input prior to finalization of potential study.
4. 2023: Incorporate potential study findings in 2023 IRP. The 2023 IRP shall include incentive options and best practices to achieve the modeled levels of DSM.²⁵

The Commission finds that the DESC-proposed action plan is sufficient and is designed to accomplish the goal of the related portion of Order No. 2020-832. Therefore, the Commission finds that DESC has submitted an appropriate action plan to complete the comprehensive evaluation of DSM at the stated levels for inclusion in DESC's 2023 IRP.

²⁴ DESC 2020 Revised Modified IRP at p. 43.

²⁵ DESC 2020 Revised Modified IRP at p. 43.

J. Element 11: Include Customer Affordability and Bill Impacts as an Analysis Criterion

DESC conducted an analysis using the same incremental cost data that was used in preparing the Levelized Cost for each resource plan.²⁶ Rate impacts were computed with forecasts embedded in the various scenarios. The analysis then combined that data with cost of service allocators between rate classes and computed the relative impacts of resource plans on the monthly bill for a typical 1,000 kWh residential customer for each year from 2020 to 2034.²⁷

The Commission finds DESC has completed the required analysis and satisfied the requirements of Order No. 2020-832 in this regard.

K. Element 12: Discuss Current and Potential State and Federal Environmental Regulations

DESC states that, “The Company’s utility operations and construction activities are subject to a number of environmental laws and regulations which are constantly changing. Revised rules and new laws are likely under the Biden Administration.”²⁸ DESC discusses current and potential regulations under New Source Performance Standards for Greenhouse Gas Emissions from Electric Generating Units; the Affordable Clean Energy Rule; Cross-State Air Pollution Rule; Mercury Air and Toxics Standards; Clean Water Act Section 316(b); Effluent Limitation Guidelines; and the Coal Combustion Residual Rule.²⁹

The Commission finds that the discussion of the various environmental regulations and potential regulations satisfies the requirement of Order No. 2020-382.

²⁶ DESC 2020 Revised Modified IRP at p. 78-79.

²⁷ DESC 2020 Revised Modified IRP at p. 79-81.

²⁸ DESC 2020 Revised Modified IRP at p. 20.

²⁹ DESC 2020 Revised Modified IRP at p. 20-21.

L. Element 13: Include Reliability Metrics and Generator Performance Data

Element 13 addresses Finding of Fact #21 in Order No. 2020-832. As ORS states with regard to DESC's original Modified 2020 IRP filed April 20, 2021, "The Company was required to provide generator performance data, equivalent availability factors, and forced outage rates for its generating units, but instead only provided graphs with some results that were based on aggregated data."³⁰ In response, DESC filed the Revised Modified 2020 IRP on May 24, 2021, which added "Appendix O."³¹ ORS reviewed the additional data presented in the Revised Modified 2020 IRP by DESC. ORS filed a letter with the Commission on May 25, 2021, stating that "ORS is satisfied with DESC's response to the deficiencies identified in the ORS Report of DESC's Modified IRP and has no additional comments."³²

The Commission finds that the Revised Modified 2020 IRP filed by DESC cured the deficiencies identified by ORS in DESC's original Modified 2020 IRP. With the supplemental information provided in the Revised Modified 2020 IRP, the Commission finds that DESC supplied sufficient information to fulfill the requirements of Order No. 2020-832.

M. Element 14: Include Information on Storm-Related Impacts

DESC reported information regarding its recent storm response experience including the specific storm impacts occurring in its service territory in 2019. DESC

³⁰ ORS Report filed April 20, 2021 at p. 1 fn. 1 (<https://dms.psc.sc.gov/Attachments/Matter/f818e2aa-8d45-4d8d-b401-b8d5ec3da000>).

³¹ DESC 2020 Revised Modified IRP at p. 216-224.

³² ORS Letter filed May 25, 2021 at p. 1 (<https://dms.psc.sc.gov/Attachments/Matter/400ba803-305c-4b72-ac05-8f91769e81d2>).

concluded that, “The availability of generation resources has not been an issue in responding to any recent storms. The Company is unaware of any case in which the availability of solar or other distributed generation has played a positive role in storm restoration efforts or reliability during storm events.”³³

The Commission finds that the storm experience reporting is adequate to satisfy the requirements set forth in Order No. 2020-832.

N. Element 15: Competitive Procurement of Flexible Solar Photovoltaic PPAs

DESC incorporated competitive procurement of 400 MW of flexible solar photovoltaic PPAs into the resource plans that were modeled, specifically RP7 and its variations - RP7a, RP7a2, RP7a3, RP7b, RP7b2, and RP7b3.³⁴ The Commission finds that the modeling of the competitive procurement of flexible solar PPAs was an adequate response to fulfill the requirements of Order No. 2020-832.

O. Element 16: Include a Three-Year Action Plan

DESC included a short-term (three-year) action plan in its Revised Modified 2020 IRP.³⁵ In this short-term action plan, DESC asserts that, “At present, the Company’s reserve margins are fully sufficient to meet customers’ capacity needs in the near term.”³⁶ Further, DESC advises that,

In the very near-term, it is in customers’ best interest for the Company to continue operating its existing portfolio of renewable, fossil and nuclear generation resources while the Company executes its plans to:

- Enhance IRP Advisory Stakeholder Group process,

³³ DESC 2020 Revised Modified IRP at p. 28.

³⁴ DESC 2020 Revised Modified IRP at p. 48-49.

³⁵ DESC 2020 Revised Modified IRP at p. 82.

³⁶ Id.

- Finalize the implementation of the PLEXOS resource optimization model (after consultation from the IRP Stakeholder Advisory Group) for use in conducting retirement studies,
- Reevaluate (in consultation with the IRP Stakeholder Advisory Group) its approach to key planning inputs like natural gas prices, future customer demands including electric vehicle adoption, environmental constraints and the cost of renewables and storage,
- Review its DSM portfolio for the potential to increase reductions in sales growth, and
- Implement new demand reduction programs made possible by AMI.³⁷

The Commission finds that the three-year action plan is adequate to satisfy the requirement in Order No. 2020-832. The Commission is expressly making this finding pursuant to South Carolina Code Section 58-37-40(C)(4), and it shall not be determinative of the reasonableness or prudence of the acquisition, replacement, or construction of any new resources, or the making of any expenditure, by DESC.

V. CONCLUSIONS OF LAW

Under the statutory provisions of Act 62, this Commission formerly rejected and required modification of DESC's 2020 IRP in Order No. 2020-832. In the current matter of addressing DESC's Revised Modified 2020 IRP, S.C. Code Ann. Section 58-37-40 (C)(3) states: "the commission at its discretion may determine whether to accept the revised integrated resource plan or to mandate further remedies that the commission deems appropriate." The Commission, in consideration of all of its Findings related to Elements 1-16, concludes that DESC's Revised Modified 2020 IRP addresses all statutory

³⁷ DESC 2020 Revised Modified IRP at p. 82-83.

requirements and all deficiencies identified by this Commission for purposes of this proceeding. The Revised Modified 2020 IRP is therefore approved.

The statutory provisions of S.C. Code Ann. Section 58-37-40 (C)(2) state: “The commission shall approve an electrical utility’s integrated resource plan if the commission determines that the proposed integrated resource plan represents the most reasonable and prudent means of meeting the electrical utility’s energy and capacity needs as of the time the plan is reviewed.” The Commission, in its evaluation of the specific “most reasonable and prudent” plan notes that DESC asserts,

Having reviewed the results of this additional modeling, and having considered the needs of its customers and the operating conditions of its system, DESC has determined that the most reasonable and prudent plan to pursue at this time is Resource Plan 8 (“RP8”). Resource Plan 8 assumes that the Wateree and Williams coal-fired Stations are retired in 2028, the Cope coal/gas-fired Station is converted to gas-fired only status in 2030, and between 1,700 and 2,000 MW of solar resources and between 700 and 900 MW of battery storage are added to the system along with gas resources to maintain reliability.³⁸

The Commission also notes that the Joint Intervenors similarly urged adoption of the RP8 plan, but with additional requirements in future proceedings or matters:

Specifically, we recommend that the Commission:

1. Approve RP8 to lock in long-term savings from coal retirements, contingent upon additional modeling in subsequent proceedings related to both near term renewable energy additions and clean energy replacement capacity options for the coal units identified for retirement;

³⁸ DESC February 19, 2021 Filing Letter at p. 1 (<https://dms.psc.sc.gov/Attachments/Matter/e8895db3-4a1a-4022-9d3b-e5e89eb3ffab>).

2. Approve RP8 as the most reasonable and prudent plan and either (1) require DESC to conduct additional modeling to validate that RP8 would be strengthened and better meet the “reasonable and prudent” standard of Act 62 if near-term solar and storage resources were added to that resource plan; or (2) require that DESC conduct this additional modeling of near-term solar and storage additions in either its 2021 IRP Update or a DESC-specific competitive procurement docket³⁹

In addition to the conclusions explained and stated previously herein, the Commission concludes, pursuant to S.C. Code Ann. Section 58-37-40 (C)(2), that DESC’s Revised Modified 2020 IRP RP8 be approved as DESC’s preferred resource plan. The Commission further concludes that the modeled RP8 represents the most reasonable and prudent means of meeting the electrical utility’s energy and capacity needs as of the time the plan is reviewed.

While the conclusions of this Commission determine that DESC has satisfied the statutory requirements and addressed deficiencies for this proceeding with its Revised Modified 2020 IRP, the Commission would emphatically state that there is opportunity and expectation for future improvements in later-arriving IRP Updates and IRPs, as ordered both herein and in Order No. 2020-832.

VI. ORDERING PROVISIONS

IT IS THEREFORE ORDERED:

1. The Revised Modified 2020 Integrated Resource Plan of The Dominion Energy South Carolina, Inc. is approved. A copy is attached as Order Exhibit No. 1.

³⁹ Joint Intervenors’ Comments filed April 20, 2021, at p. 4.

2. DESC needs to evaluate near term solar and storage additions in conjunction with its Revised Modified 2020 IRP as previously ordered by the Commission. It is important that potential cost savings for ratepayers can be fully evaluated in subsequent IRPs. Therefore, DESC is ordered to include near term solar and storage in its 2021 IRP Update.

3. DESC proposes in its Action Plan for the first time a combustion turbine construction plan. In that plan, it calls for the replacement of older natural gas combustion units with aeroderivative replacement units. However, DESC omitted any substantive details of the CT Plan in its Revised Modified 2020 IRP and DESC did not include the CT Plan in its revised modeling. DESC is therefore ordered to provide these updates in its 2021 IRP Update.

4. Act 62 requires DESC and all other regulated utilities to include resource plans that represent “the range of demand-side, supply-side, storage, and other technologies and services available” to meet the utility’s obligations. Act 62 also requires a company in its IRP to include “plans for meeting current and future capacity needs with cost estimates for all proposed resource portfolios in the plan.” Therefore, DESC shall include these in its 2021 IRP Update.

5. DESC is ordered to adjust its Reliability Factors in its 2021 IRP Update consistent with Appendix A of the filed “Joint Comments of South Carolina Coastal Conservation League, Southern Alliance for Clean Energy, Carolinas Clean Energy Business Alliance and Sierra Club” dated April 20, 2021. DESC has taken an “average ranking” approach to quantify net present value and fuel costs results. Dr. Sercy in his testimony warned that “using average rankings actually has the effect of hiding risk rather

than illuminating it.” DESC is required to adhere to Order No. 2020-832 in its application of the approved Minimax regrets and cost range analyses, as well as the plan selection criteria required by the Commission in its 2021 IRP Update as well as in all future IRPs. In its 2021 IRP Update as well as in all future IRPs, DESC shall use Dr. Sercy’s Minimax Regrets and Cost Range methodologies in addition to using the “average ranking” approach in order to provide information related to risk using these various approaches.

6. DESC is ordered to develop and implement an All Source Procurement Plan in future IRPs which would offer independent power producers and developers to compete with DESC proposals in a technology-neutral process. This will ensure that the opportunity for ratepayer savings and value is enhanced. Future DESC IRPs should recommend a portfolio of resources that best meet the needs of the DESC system using actual bid data.

7. DESC is directed to employ a reasonable levelized cost of saved energy (LCSE) which is comparable with industry standards in conducting its upcoming Market Potential Study and in developing future IRPs starting with the 2021 IRP Update.

8. DESC is also ordered to include load forecasts and the integration of Energy Efficiency impacts with its stakeholders as part of the 2021 IRP Update. DESC is also required to present realistic and levelized DSM costs in all future IRPs starting with the 2021 IRP Update.

9. DESC is directed to use marginal line losses in the calculation of avoided costs and in the translation of energy savings from the Market Potential Study to energy savings in future IRP modeling beginning with the 2021 IRP Update.

10. DESC is required to use “cost effective, reasonable and achievable” as the standard going forward for evaluating the potential for higher savings portfolios in future IRPs and updates beginning with the 2021 IRP Update.

11. All aspects of Order No. 2020-832, not inconsistent with this motion, are still in effect, including but not limited to the Commission’s expectations of improved future IRP Updates and IRPs.

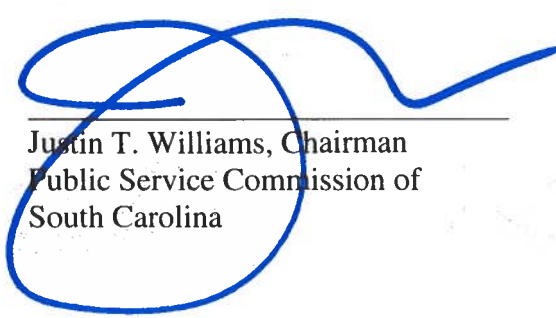
12. Pursuant to South Carolina Code Section 58-37-40(C)(4), the Commission’s findings, conclusions, and Order in this docket shall not be determinative of the reasonableness or prudence of the acquisition, replacement, or construction of any new resources, or the making of any expenditure, by DESC.

13. DESC shall file its 2021 IRP Update within sixty (60) days from the date of the issuance of this Order.

14. This Order shall remain in full force and effect until further Order of this Commission.

BY ORDER OF THE COMMISSION:




Justin T. Williams, Chairman
Public Service Commission of
South Carolina